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HT630 Mobile Computer

Product Reference Guide
Rev. A

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About This Manual

This manual explains how to install, operate and maintain the Unitech HT630 Mobile Computer.

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Support

Unitech's professional support team is available to quickly answer your questions or technical-related issues. Should an equipment problem occur, please contact the Unitech regional service representatives nearest you. For complete contact information, please visit the Web sites listed below.

UTA (USA, Canada) http://www.ute.com

UTA (Latin America) http://latin.ute.com

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Notices

General Precautions

- Before using this product be sure to read through this manual. After reading, please keep the manual in a safe place for future reference.
- The information contained is subject to change without notice.
- Unitech is not responsible for any operational results regardless of missing information, errors or any misprinting in this manual.
- Unitech is not responsible for problems created as a result of using options and consumables not officially approved.
- This product is designed for servicing at an Authorized Service Center. Other than routine maintenance described in this manual, the user should not attempt to repair, service or disassemble this product.
- Incorrect operation, handling, improper supplies and operating environments may cause damage or otherwise affect the proper operation of this product. Such actions invalidate the product warranty.

Battery Notice

- This unit is equipped with a Lithium-Ion battery pack and backup battery. Although charged Lithium-Ion batteries may be left unused for several months, their capacity may be depleted due to build up of internal resistance. If this happens they will require recharging prior to use. Lithium-Ion batteries may be stored at temperatures between -4°F to 140°F, however they may be depleted more rapidly at the high end of this range. It is recommended to store batteries within normal room temperature.

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Table of Contents

Chapter 1
Introduction

Overview . . . 6
Support . . . 6
Customized HT630 . . . 6
Technical specifications . . . 7
In the box . . . 8
Accessories . . . 8
Installing and Charging the Battery . . . 9
Installing the Battery . . . 9
Charging the Battery . . . 10
Cradle . . . 11
Interface Ports . . . 12
USB Connection . . . 12
Using the Keypad . . . 14
Numeric Mode . . . 15
COMMAND Mode . . . 15
ALPHA Mode . . . 15
Triggering Scanner Module . . . 16
Application Development Environment . . . 16
JobGen Plus . . . 16

Chapter 2
Power System

Power System . . . 17
Main Power . . . 17
Backup Power . . . 17
Power Low Indication . . . 18
Main Battery . . . 18
Lithium Backup Battery . . . 18
Battery Replacement . . . 18
Recharging the Battery . . . 19
Charging Consideration . . . 19
Effects of Overcharging Batteries . . . 19
Storage and Safety Precautions . . . 19

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Chapter 3
Operation

Overview 20
Ready Mode 21
User Mode and System Commands 21
Configure the HT630 in SET Command 24
Date & Time - Setting the system clock and calendar 24
Scanner 24
DISPLAY 25
KEYPAD 25
EXIT 25
Uploading and Downloading Files 26
PTComm Manager 26
uTransfer 27

Chapter 4
Built-in Application - FormCaching

Overview 28
Specifications of FormCaching 28
How to Create a FormCaching 30
How to Run FormCaching 30
Default Setting of FormCaching 31

Chapter 5
Warranty

Warranty 32
Warranty and/or Repair Service 32

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Chapter 1

Introduction

Overview

Thank you for choosing the HT630 from Unitech. With many built-in functions that are easily customized to meet your needs, the HT630 is one of the most versatile mobile computers on the market. It is light, rugged, and waterproof. The HT630 is also capable of withstanding multiple 4-foot drops to concrete. Depending on the model you have purchased, your mobile computer is equipped with either 512K, 2.5MB or 4.5MB of RAM. The HT630 also has different communication and charging options: RS232, Ethernet, USB or Modem cradles.

Support

Unitech products are built to perform and we stand behind every product we make. The Unitech service and support team is one of the best in the business, dedicated to customer service and ready to solve any issues that may come up. If you find any problems with your terminal or any other product please feel free to contact us at www.ute.com.

Customized HT630

It is likely that when you received this terminal it was already customized by a system integrator or system developer to meet your specific application. If this is the case, many operating procedures mentioned in this manual may not apply. Please consult your system provider for more information regarding customization.

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Technical specifications

Physical Characteristics	
Dimensions:	6.49”L x 2.36”W x 1.38”H
Weight:	8.1 oz
Drop Specification:	Multiple 4-foot drops to concrete
Display:	128 x 64 pixels; 8 lines, 16 characters per line (small font) or 4 lines, 12 characters (large font).
Battery:	3.7V/900mAH Li-Ion rechargeable battery
Backup Battery:	120mAH Li-Ion rechargeable battery
Environmental Sealing:	IP54
Operating Temperature:	23º ~ 122ºF
Storage Temperature	-4º ~ 158ºF
Humidity:	5% to 95% RH; not condensed
Electrostatic Discharge (ESD):	4 KV for contact discharge 8 KV for air discharge
Backlit Display:	Yes
Keypads:	26 alphanumeric keys + one scan trigger (phosphorescent material)

Performance Characteristics	
CPU:	X86 Compatible, 16 bit
Operating System:	DOS compatible
Memory:	512KB / 2.5MB / 4.5MB (option)
Flash ROM	256KB
Application Development:	C language, Turbo C, Visual C, JobGen plus (a window based program generator), FormCaching (a built-in program generator)
Communication	RS232, Modem, USB, Ethernet communication
Operating Time	Over 10 hours (1 bar code scan every 5 sec)
Symbologies	UPC/EAN, Code 39, Interleave 2 of 5, CODABAR, MSI, Code 128, Code 93, Code 32, China Postal Code
Buzzer	70 dB
One LED	Dual color; Green / Red

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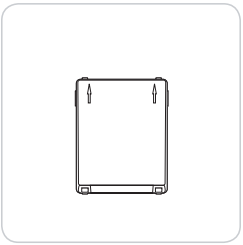
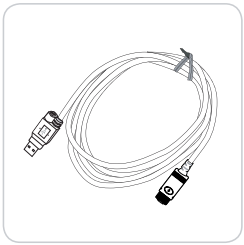
In the box

The HT630 standard packaging includes:

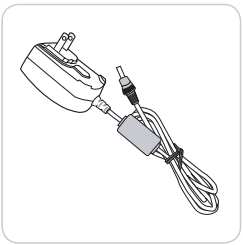
HT630 Mobile Computer



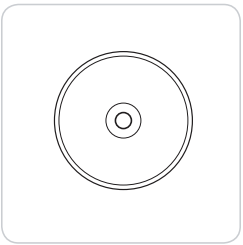
Lithium-Ion Battery



Charging / Communication Cable
(RS232 or USB)



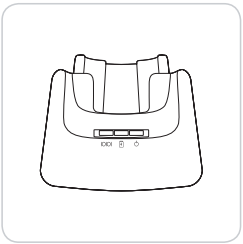
AC Adapter



Product CD-Rom

Accessories

While there are numerous accessories available for the HT630 (cables, battery chargers and carrying cases), the operating procedures in this manual reference the cradle as an option for charging and communicating with the HT630.



Charging / Communication Cradle
(RS232, Modem or Ethernet)

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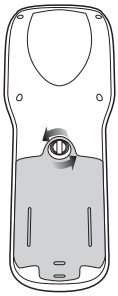
Installing and Charging the Battery

One Lithium-Ion battery is included with the HT630, and the battery must be charged before the device is ready for use.

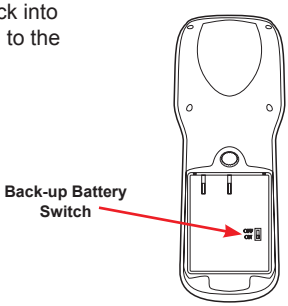
Installing the Battery

- Using a coin or screw driver, unlock the battery door by turning the locking screw in a counterclockwise direction.

  Remove the battery door by lifting it off the HT630.



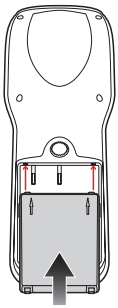
- Before inserting the Lithium-Ion battery pack into the HT630, turn the back-up battery switch to the “On” position.



- Insert the battery so the gold contacts on the battery line up with the contacts on the HT630. Then slide the locking tabs on the top of the battery into the open slots in the HT630 battery compartment.

  Once the locking tabs are securely in place, press the bottom half of the battery into the compartment.

  Then reinstall the battery door and tighten the screw to secure the door in place.



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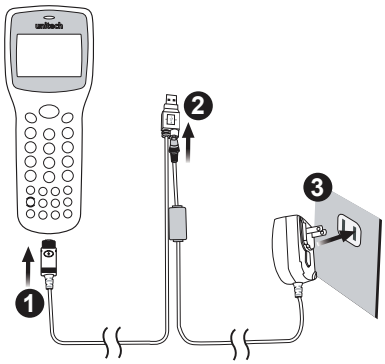
Charging the Battery

Before using the HT630, both the main battery and backup battery must be fully charged. The HT630 is equipped with a 3.7V 900mAh Lithium-Ion battery. Prior to initial use, please fully charge the main and backup batteries for at least 12 hours.

There are two ways to charge the main battery and backup battery. First, locate the communication / charging cable and AC adapter in the HT630 box. Connect the cable to your HT630 and the AC adapter to an electrical outlet by following these steps:

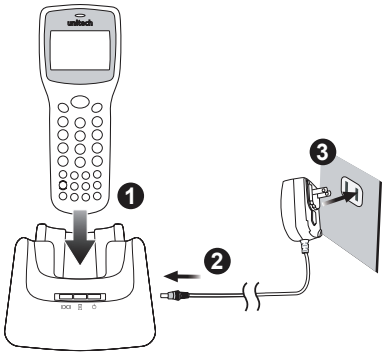
1. Insert the comm connector on the communication / charging cable into the bottom of the HT630. Please ensure the arrow on the connector is facing up.
2. Plug the AC adapter into the power port on the RS232 / USB connector on the communication / charging cable.
3. Plug the power supply into an electrical outlet. The charging is complete when the LED light turns green.



The second way to charge the main battery and backup battery is by inserting the HT630 into the charging cradle (optional accessory):

1. Insert the HT630 into the charging cradle and press downward until the HT630 sits securely in the cradle.
2. Plug the power adapter into the DC port on the back of the charging cradle.
3. Plug the power supply into an electrical outlet.

   During charging, the LED indicator above the power icon ( ) will illuminate in red. The LED will turn green when charging is complete.



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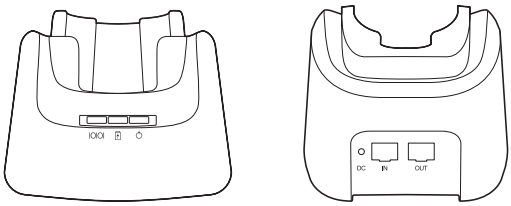
Cradle

The cradle provides charging and communication capabilities to your HT630 Mobile Computer. This section details the various icons imprinted on the cradle.



Cradle LED Icons

	This icon indicates communication. When the HT630 is transmitting data with the host computer, the LED will flash, showing that data is transmitting.
	This icon indicates the charging of the HT630. When charging in the cradle, the LED will illuminate in red; when fully charged, the LED will turn green.
	This icon indicates the power status of the cradle itself. When the LED is on, it is indicating that power is being supplied to the cradle.

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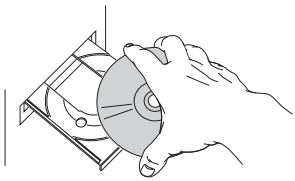
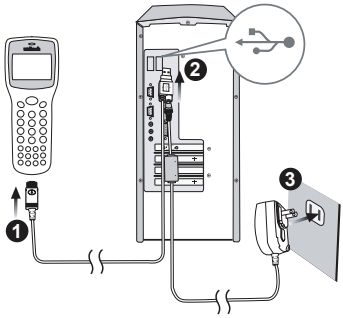
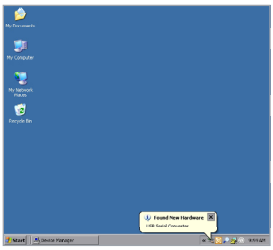
Interface Ports

The HT630 communicates through the comm port located on the bottom of the unit. Connect the HT630 to a PC's RS232 or USB port with the charging / communication cable. The cradle can be connected to a PC in the same fashion.

USB Connection

To use the USB connection between the HT630 and a PC, you must configure a USB driver. Follow the instructions to establish USB connectivity to a PC.

1. Insert the Product CD Locate the Product CD included in your HT630 box, and insert it into your PC's CD-ROM drive. The Product CD has the necessary USB drivers required for your HT630 and PC to communicate.	
2. Connect the USB Cable Locate the USB communication / charging cable in your HT630 box. Connect the cable to your HT630 and PC. • Insert the comm connector into the bottom of the HT630. • Insert the USB connector into a USB port on your PC. • Plug the AC adapter into the power port on the USB connector. • Plug the power supply into an electrical outlet.	
3. Windows Detects Hardware After connecting the HT630 to your PC with the USB cable, Microsoft Windows will alert you that it has "Found New Hardware". Microsoft Windows will then automatically launch the Hardware Update Wizard.	

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4. Hardware Update Wizard

The Hardware Update Wizard will help guide you through the necessary steps to install the HT630 USB driver for your PC:

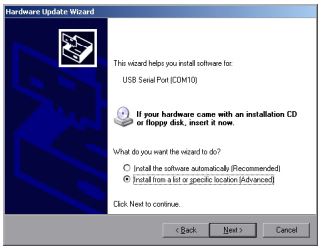
- On the first screen the Hardware Update Wizard asks to search for software using Windows Update.

  Select “No, not this time”, then click “Next”.

- The next screen asks “What do you want the wizard to do?”

  Select “Install from a list or specific location”, then click “Next”.

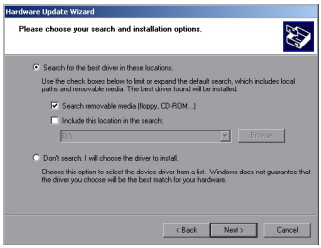
Hardware Update Wizard
Welcome to the Hardware Update Wizard
Windows will search for current and updated software by looking on your computer, on the hardware installation CD, or on the Windows Update Web site (with your permission).
Read our privacy policy
Can Windows connect to Windows Update to search for software?
Yes, this time only
Yes, now and every time I connect a device
No, not this time
Click Next to continue.
< Back
Next >
Cancel


Hardware Update Wizard
This wizard helps you install software for:
USB Serial Port (COM10)
If your hardware came with an installation CD or floppy disk, insert it now.
What do you want the wizard to do?
Install the software automatically (Recommended)
Install from a list or specific location (Advanced)
Click Next to continue.
< Back
Next >
Cancel

5. Locate Driver

The next screen prompts you to choose your search and installation options.

- Select “Search for the best driver in these locations.”
- Select “Search removable media”, then click “Next”.


Hardware Update Wizard
Please choose your search and installation options.
Search for the best driver in these locations.
Use the check boxes below to limit or expand the default search, which includes local paths and removable media. The best driver found will be installed.
Search removable media (floppy, CD-ROM...)
Include this location in the search:
A:\
Browse
Don't search. I will choose the driver to install.
Choose this option to select the device driver from a list. Windows does not guarantee that the driver you choose will be the best match for your hardware.
< Back
Next >
Cancel

6. Complete Installation

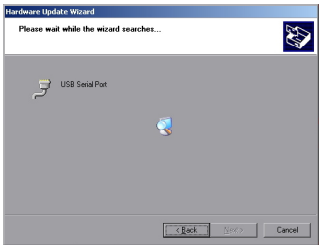
The Hardware Update Wizard will search for the necessary driver and install it on your PC.

Click “Finish” to complete the installation.

Once the installation for the USB driver is complete, the Hardware Update Wizard will open again to create the virtual com port for your HT630 to communicate with your PC.

Repeat steps 3 - 5 to create the virtual com port.

Your HT630 is now ready to communicate with your PC.



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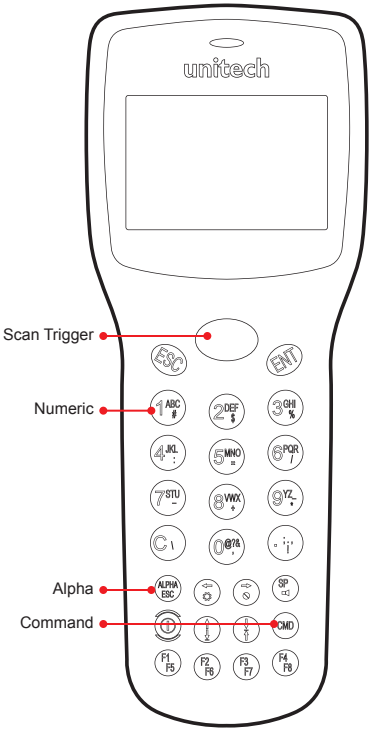
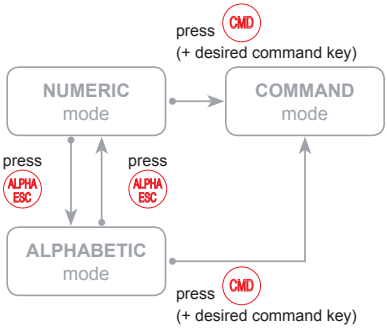
Using the Keypad

The HT630's keypad consists of 27 rubber keys that can be configured into three different modes: Numeric Mode, Command Mode, and Alphabetic Mode. All keys except the power key make a sound when pressed. Keys in the upper four rows have a larger size for easier data input.

⏻	To turn on the HT630, you need to press the power ⏻ key. To turn off the HT630, you will need to press and hold the power key for one second.
CMD	Press CMD and the desired command key (the light blue symbols at the bottom of the keys) to set the keypad to output command functions.
ALPHA ESC	In the Command or Supervisor Mode, press ESC to get back to the previous menu.





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Numeric Mode

The HT630 keypad is set to Numeric Mode after being powered on. In Numeric Mode, the cursor is a block and the keypad is mainly used to input numeric data and use the four function keys (F1 F5 F2 F6 F3 F7 F4 F8).

COMMAND Mode

Press the command CMD key to set the keypad to Command Mode. In Command Mode, the cursor sign is still the same and the keypad is mainly used to input special characters, make hot-key functions, and use F5-F8 as function keys.

ALPHA Mode

Press the alpha ALPHA ESC key to toggle between Numeric Mode keypad and Alpha Mode keypad. In the Alpha Mode, the cursor is an underscore sign and the keypad is available to input upper case letters. In Alpha Mode, every numeric key contains three individual characters. You need to press the key once to get the first character, twice to get the second character and three times to get the third character.

For example:

- First press alpha ALPHA ESC key to switch the system to Alpha Mode, the cursor type will be changed from block to underscore.
- To enter ‘A’, press 1 ABC once.
- To enter “B”, press 1 ABC twice.
- To enter “C”, press 1 ABC three times.

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Triggering Scanner Module

The HT630 can be used with a built-in laser scanner module to input data. The built-in decoder reads most bar code labels. Users should keep the laser window clean to prevent low reading rate of distorted bar code input signals.

Application Development Environment

The HT630 provides DOS functions and device drivers for application development, including bar code decoding, keypad input, display output, serial input/output communication, real-time clock access and power management control.

The HT630 can be programmed by the Windows-based JobGen Plus program generation software or programmed by commonly used C compilers including Microsoft C, Borland C and Turbo C. An executable program generated by JobGen Plus or created by a compiler is downloaded to the HT630 and run on the unit.

JobGen Plus

JobGen Plus is a Windows-based program generator that gives users a comprehensive terminal application development environment. With JobGen Plus, users can design an application program for the HT630 by simply drawing the data collection sequence on paper. The program requires minimal programming skills.

For more detailed programming information, please refer to the *HT630 Programming Reference Manual / JobGen Pro User's Manual.*

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Chapter 2

Power System

Power System

Main Power

The HT630 is powered by a rechargeable 3.7V 900mAH Lithium-Ion battery pack. The main battery should be sufficient for daily operation up to 10 hours (based on 1 bar code scan every 5 seconds). However, since actual operation requirements may vary, it is possible to get a shorter result than the estimated operating times.

Backup Power

A Lithium battery is used as the secondary power source to back up the data on the HT630. The RTC (real time clock chip) and RAM memory also help to prevent data loss.

Normally, the HT630 gets power from the main battery to back up the RTC and RAM. This also puts the backup battery in standby mode. When the main battery is removed or below the required level to back up the RAM and RTC properly, the power circuit of the HT630 automatically switches to the backup battery for power.

It is recommended to always keep the main battery charged. If the main battery loses charge, the backup battery is capable of storing data for up to 6 months.

As long as the main battery is charged, you will not have to replace the backup battery. If you do replace the backup battery, all data stored on the device will be lost. All data must be backed up before replacing the backup battery.

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Power Low Indication

Main Battery

When the main battery becomes low, a warning message will be shown on the screen.

When the low battery message appears, the main battery can continue to supply power for about 30 more minutes. When the HT630 reaches the system power cutoff point it will automatically turn off. The HT630 will store the data contents in the RTC and RAM but cannot be turned on again until the batteries have been recharged or replaced.

Lithium Backup Battery

When the Lithium backup battery doesn't have enough capacity to back up the system, a message will appear on the screen. In this situation, you should upload your data from the HT630 immediately and recharge or replace with a new Lithium battery.

Battery Replacement

Main Battery

- Make sure the unit is turned off.
- Turn the unit over and unscrew the battery door by turning the screw counterclockwise.
- Remove the main battery pack from battery compartment.
- Insert the new main battery and reinstall the battery door.

Backup Battery

- The backup battery on the HT630 is not user-accessible.
- Replacement of the backup battery should be conducted by an Authorized Unitech Service Center.
- Attempting to access the backup battery may void your product warranty.

Make sure to back up your data before sending in your HT630 for backup battery replacement.

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Recharging the Battery

When the terminal shows the “Main Battery Low” message, the battery needs to be recharged *(See ‘Charging the Battery’ in Chapter 1 of this manual)*. When the battery is fully charged, the LED light will turn green. Charging time typically takes two to three hours.

Charging Consideration

It is important to consider the temperature when charging the Lithium-Ion battery pack. The charging process is most efficient at normal room temperatures or slightly cooler. It is essential to charge the battery within the stated range of 32°F to 113°F (0°C to 45°C). Charging the battery outside of the specified range could damage the battery and shorten its life cycle.

Effects of Overcharging Batteries

Overcharging may occur when a Lithium-Ion rechargeable battery is continually charged for extended periods after it has reached full charge capacity. For example, a battery left to charge for several weeks may appear to have minimal capacity. This type of failure can be remedied by completely depleting the battery of power and then recharging it to full capacity.

This condition can be prevented by immediately unplugging the power cable when the unit reaches full charge, or by using the cradle to charge the batteries. The cradle starts the charge process in Quick Charge Mode and switches to Trickle Charge Mode when it detects the battery is fully charged. There is no risk of overcharging in Trickle Charge Mode.

Storage and Safety Precautions

Batteries should be stored where there is no risk of accidental shortage or other damage. Although charged Lithium-Ion batteries may be left unused for several months, their capacity may be reduced due to back up and internal resistance. If this happens, they will require recharging prior to use. Lithium-Ion batteries may be stored at temperatures between -4°F and 158°F (-20°C to 70°C).

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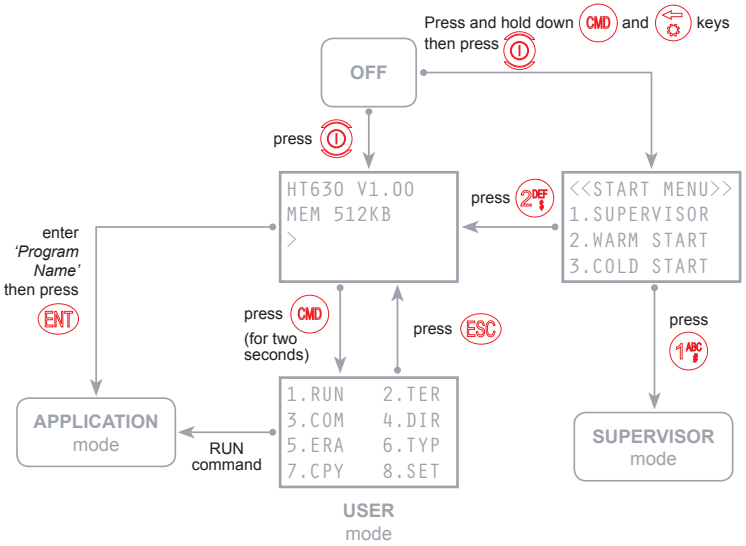
Chapter 3

Operation

Overview

The HT630 has several operating modes to optimize performance for various purposes. The diagram below shows the operating flow of the HT630 and summarizes how to switch between different modes.



System configurations are categorized in two groups. Users can select the “8.SET” command in User Mode to set general system configurations or enter Supervisor Mode to set advanced system configurations. The Supervisor Mode is password protected to prevent unauthorized personnel from changing system configurations. The default password for Supervisor Mode is “630”.

It is likely that your HT630 came configured by your software vendor or system developer. If this is the case, please use caution when changing these settings.

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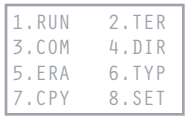
Ready Mode

The HT630 performs a Power-On-Test and Warm-Start when it is switched on. After the Warm Start, the system enters Ready Mode and shows the Ready Mode Prompt.

Ready Mode Prompt	
	The first line indicates the model code and version number (e.g. V1.00). The second line shows the size of the total installed RAM (i.e. 4608 KB). The third line prompts a “>” which indicates that the terminal passed the Power-On-Test and is ready to be used.

User Mode and System Commands

There are eight system commands: RUN, TER, COM, DIR, ERA, TYP, CPY, and SET. Each command can be entered through menu-selection in User Mode. Users can press the CMD key for two seconds in Ready Mode to enter User Mode.

User Mode Prompt	
	Select the corresponding number, 1-8, or press ( ) to highlight a command then hit ENT to select a system command. Pressing the ESC key returns to Ready Mode.

RUN When you invoke the RUN command, you may press ( ) to toggle to the loaded program and hit ENT to run the program. The program may also be executed on the HT630 by entering the program name directly in Ready Mode.

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TER This command puts the HT630 in either Terminal Emulation Mode or FormCaching Application Mode depending on which function you select. See *Chapter 4 'Built-in Application - FormCaching'* for details on how to configure and use FormCaching.

In Terminal Emulation Mode, the HT630 transmits data to or receives data from a host computer. In this mode, data input from the bar code reader or keypad is displayed on screen and output to the serial port. Data received from the serial port is displayed on the LCD screen. Communication parameters, such as baud rate, data bits, parity, stop bits and flow control, must be set to be compatible with the destination in order to send data properly.

COM This command puts the HT630 in Kermit Server Mode.
The following are the available Kermit commands for the Host/PC:

Command	Description
Send *filename*	Send a file from the Host/PC to the HT630 and store it in RAM
Get *filename*	Get a file from the HT630 to the Host/PC
Remote dir	List files stored in the HT630's RAM
Remote Del *filename*	Delete a data file stored in the HT630's RAM

Make sure to set the HT630 communication parameters to match the Host/PC system before proceeding with data communication. Press ESC to return to Ready Mode.

DIR This command shows the files stored in the HT630's RAM with the following information:

- The list of file names stored in RAM
- The size of the program execution area
- The amount of free RAM left

ERA This command deletes a file from RAM. After the file has been deleted, it cannot be recovered.

Use the left and right arrow (⇦ ⇨) keys to toggle the files and press ENT to delete.

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TYP

This command displays the contents of a file on the HT630's LCD. The contents of the file will be displayed 128 (16 characters x 8 lines) characters at a time.

Press any key to show the next page or hit ESC to return to the User Mode Prompt. If you try to display a program or binary file, you may only see unintelligible characters.

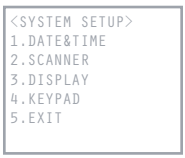
CPY

This command allows users to make a copy of data from a source device to a destination device. The source device may be a file, COM (serial input), CON (keypad), and the destination device may be a file, COM (serial output), CON (LCD display).

Source	Dest	Function
file1	file2	Copy file1 to file2
file1	COM	Output content of file1 to serial port
file1	CON	Output content of file1 to LCD
COM	file2	Input data from serial port and store in file2
CON	file2	Input data from keypad and store in file2, press ESC to end the data input

SET

This command allows users to set system date and time, assign laser features and allow the display of the power-on logo *(see next section)*.



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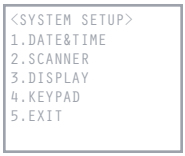
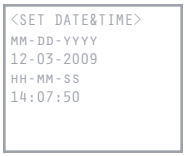
Configure the HT630 in SET Command

There are three categories of general system configurations available in the SET Command. Select the corresponding number, 1-3, to set the system date and time, assign scanning features and enable the power-on logo display. Press (ESC) to return to User Mode prompt.



Date & Time - Setting the system clock and calendar

When a user selects “1.DATE & TIME” in the SET Command Menu, the screen to the right will be shown on the HT630’s LCD and lets you set the system date and the time of the Real Time Clock chip (RTC). The system date and time can be retrieved in applications and used as a time stamp for data collection. The second line shows the current date in the format DD/MM/YYYY (year/month/day). If you want to reset the system date to January 1, 2010, then enter [0][1][0][1][2][0][1][0].



After entering the date, you will be prompted to set the system time. Set the system time like the system date described above. The format of system time is expressed in the 24-hour format of HH:MM:SS (hour:minute:second).

Scanner

The system software of the HT630 decodes all major bar code symbologies including Code 39, Code 128, Codabar, Code 93, I25, EAN, UPC and China Postal Code. Use the (⇨) key to toggle among the selections in each category, then press the (ENT) key to confirm.

SCANNER	Enable / disable bar code decoding.
LASER TRIG MODE	If **NORMAL** is selected, you must press and hold down trigger to scan a bar code label. If **FLASH** is selected, you can directly scan a bar code label without pressing the trigger key.
LASER AIM	Enable / disable laser beam target pointer for long distance bar code reading.
VERIFICATION	Enable / disable double check verification on scanned bar codes.

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DISPLAY
Enable/disable the power-on logo display when the terminal is powered on.

KEYPAD
Allows users to set UPPER / LOWER case of each character.

EXIT
Leave the SET (setting) environment.

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Uploading and Downloading Files

ESC Command

Uploading or downloading by the Kermit server *(see 'User Mode and System Commands' in Chapter 3 of this manual)* requires the HT630 to be set to Kermit Server Mode by selecting user command "3.COM" in User Mode or by calling a system function in an application program.

The hardware and software on the HT630 is designed so the unit can be turned on upon receiving input from the serial port. The HT630 can also be instructed to process data communication by remote ESC commands through built-in MULTI communication protocol.

After linking the HT630 to a PC/Host, a communication program running on the host will send a few dummy bytes to the HT630 and delay for a few seconds to remotely turn on the unit. The program can send out data from a remote ESC command that matches the MULTI protocol to the HT630 and instruct the unit to perform certain processes.

For example, the HT630 will automatically execute the system routine to upload a file after receiving the valid "File upload" ESC command. Meanwhile, the program running on the host should follow the control flow of MULTI protocol and processes to receive the data.

For a detailed description of each ESC command and protocol, please see the *HT630 Programming Reference Manual*.

PTComm Manager

Data may also be transferred to and from the HT630 with PTComm Manager which can be found on the Product CD in the HT630 packaging. PTComm Manager must be installed on the PC in order to communicate with the HT630. Once PTComm Manager is installed follow, these steps to transfer the data file to the PC:

1. Connect the HT630 to the Host/PC via the communication cable or cradle.
2. Open PTComm Manager.
3. Click on the HT630 icon under "File" or click on "Transfers" > "Connect Portable"
4. Verify the MODEL, ADDRESS, and COM PORT. Most importantly, to ensure a successful connection, select BOTH "Auto Detect Baud Rate" and "Auto Detect or Confirm Portable Model" and press OK.

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5. The HT630 should BEEP even if it is OFF, PTComm Manager will automatically turn on the device and connect to it. If there is data in the device, it will be displayed under the Portable Name. Click and drag the “FORM.dat” file to a folder within the PC directory (left hand side of the screen).

uTransfer

The uTransfer application is another option for communicating between a Host/PC and the HT630. uTransfer may be found on the Product CD in the HT630 packaging, or downloaded from the HT630 Product Page on the Unitech website. uTransfer must be installed on the PC in order to communicate with the HT630. Once uTransfer is installed, follow these steps to transfer the data file to the PC:

1. Connect the HT630 to the Host/PC via the communication cable or cradle.

2. Open uTransfer on your PC. Click the “Transfer” button in the uTransfer window to instantly transfer the data. It will search for a COM port from 1 to 20. (The files you wish to transfer from the HT630 must be in the default FORM.DAT format to successfully transfer to the Host/PC)

3. Make sure the HT630 is set to a COM port less than or equal to 20 in the Device Manager. To get to your Device Manager, go to the PC’s Control Panel, select “System” > “Hardware” > “Device Manager”. The COM port will be listed.

4. When uTransfer finishes searching all 20 COM ports, a message will display below the Transfer button showing you how many files have downloaded to your PC.

   If you have the “Sync Date and Time” option selected, the device will sync the day and time of the file with the PC.

   If you wish to delete the data file on the device after it has been transferred to the PC, select the “Auto Delete Data” option before clicking Transfer.

5. By default, the file will be downloaded to your desktop with the file name FORM.DAT. If you have more than one device connected to the computer when you click Transfer, the second file will be named FORM02.DAT, and the third file will be FORM03.DAT, etc.

6. You may change the location of the file, as well as the file name and its extension in the Settings window. Click “Apply” or “OK” to save the changes.

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Chapter 4

Built-in Application - FormCaching

Overview

The HT630's system includes a built-in application called FormCaching. This application allows users to create a data entry application by specifying a field prompt, type, length, input method, delimiter, etc., without having to write the program code and load it to the terminal.

Specifications of FormCaching

DATA FIELD DEFINITION: maximum field number = 8			
	Category	**Range**	**Description**
1	FIELD PROMPT	Max. 16 characters	Set field prompting
2	MIN/MAX DATA LENGTH	1 - 32	Set minimum field length and maximum field length
3	DATA TYPE	1. NUMERIC 2. ALPHANUM	Numeric data (0~9) or alphanumeric data (20H~FCH)
4	DEVICE TYPE	1. KEY ONLY 2. SCAN ONLY 3. BOTH	Input by keypad only, bar code scanning only, or both

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DATA RECORD DEFINITION			
	Category	**Range**	**Description**
5	BETWEEN FIELD	1. Append screen 2. Clear screen	Specify to clear or append screen between two fields
6	FIELD DELIMITER	1. , 2. ; 3. Space 4. Tab	Assign field delimiter
7	RECORD DELIMITER	1. CR 2. LF 3. CRLF	Assign record delimiter
8	DATE STAMP FIELD	1. NONE 2. YYYYMMDD 3. MMDD 4. MMDDYYYY 5. DDMM 6. DDMMYYYY	Specify format of date stamp
9	TIME STAMP FIELD	1. NONE 2. HHMM 3. HHMMSS	Specify format of time stamp
10	FIELD DELAY	0 - 6	Specify time delay between each record input in seconds

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How to Create a FormCaching

You will need to enter Supervisor Mode *(see 'Overview' in Chapter 3 of this manual)* and select the "4.FORM" category in order to set the configuration of FormCaching.

After selecting the "4.FORM" in Supervisor Mode, (the screen should match the diagram to the right), the system will ask you to specify four categories of the field specifications (field prompt, data length, data type and device type) of each data field.

This step also determines the number of fields in each record. After defining all data fields, press ESC to end the setup of field specification. Or, you may also continue to set the last six categories including between field, field delimiter, record delimiter, date stamp field, time stamp field and field delay.

When the FormCaching application is executed, a data file named FORM.DAT will be created to store the data. The system will not allow the user to redefine FormCaching if a FORM.DAT file currently exists. It is necessary to delete the FORM.DAT file in order to change the configuration of FormCaching.

How to Run FormCaching

When FormCaching is enabled, the built-in application can be started by selecting the "2.TER" command in User Mode and then selecting "2.FORMCACHING". The FormCaching application will run and follow the defined settings.

All scanned and keypad input data is saved to the file named FORM.DAT. You may use the ↑ key to browse a previous data record, press ↓ to step to the next record, and press C↓ to clear the record and then input a new value for every field of this record. Press ESC to end FormCaching and return to System Ready Mode.

After collecting data, the FORM.DAT file can be uploaded to the PC/Host either through PTComm Manager, uTransfer, the Kermit server in User Mode, or through a remote ESC command.

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Default Setting of FormCaching

The default FormCaching settings are listed below:

DATA FIELD SPECIFICATION: field number = 2		
Category		**Setting**
Field #1	FIELD PROMPT	ITEM:
	DATA LENGTH	32
	DATA TYPE	ALPHANUM
	DEVICE TYPE	BOTH
Field #2	FIELD PROMPT	QTY:
	DATA LENGTH	4
	DATA TYPE	NUMERIC
	DEVICE TYPE	KEY ONLY

DATA RECORD SPECIFICATION	
Category	**Setting**
BETWEEN FIELD	Append Screen
FIELD DELIMITER	,
RECORD DELIMITER	CR
DATE STAMP FIELD	NONE
TIME STAMP FIELD	NONE
FIELD DELAY	0

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Chapter 5

Warranty

Warranty

This mobile computer is warranted by Unitech to be free of defects in parts and workmanship for a period of one year from date of shipment. This warranty does not apply to defects resulting from action of the user such as misuse, improper wiring, operation outside of specification, improper maintenance or repair or unauthorized modification. Unitech specifically disclaims any implied warranties of merchantability or fitness for a specific purpose and will not be liable for any direct, indirect, special, incidental or consequential damages. Unitech's total liability is limited to the repair or replacement of the product. The warranty set forth above is inclusive and no other warranty, whether written or oral is expressed or implied.

Warranty and/or Repair Service

A Return Merchandise Authorization number must be issued before a unit is returned to Unitech for repair. Once a unit has been properly returned to Unitech (Note: The customer is responsible for ensuring proper packing to prevent damage in transit as well as the shipping costs back to Unitech), it will be repaired (estimates are provided first if the repair cost is estimated above $100.00) and returned via FedEx ground. The customer may elect a faster mode of transport at their cost.

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